

Lyman  
Ser. No. 09/417,428  
Page 3 of 9

allowance. Thus, this is the first opportunity to present additional clarification as necessitated by the present rejection under Section 112.

Applicant's attorney placed several telephone calls to the examiner to discuss the new office action in view of the previous telephone interview extended by Examiners Cegielnik and Muir on July 31, 2001 wherein the examiners made suggestions for further clarification of the claimed invention. It was understood that, if the suggestions were incorporated into claim 1, the claims would be allowable unless new prior art was found. It was hoped that a further telephone conference would expedite prosecution since no new prior art has been cited.

The present invention is directed to and claims an amusement and stress relief device formed of a flexible, resilient polymeric material having a center portion with a concave/convex shape, wherein the device has **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second equilibrium position is the reverse or inverse of the first equilibrium position and comprises the second surface having a concave shape and the first surface having a convex shape, whereby manual manipulation of the device inverts the first and second surfaces between the two stable equilibrium positions, as set forth in claim 1. In other words, the second stable equilibrium position is the reverse or inverse of the first stable equilibrium position. The device of the present invention **requires** manual manipulation to be moved from one stable equilibrium position to the other, no matter which stable equilibrium

Lyman  
Ser. No. 09/417,428  
Page 4 of 9

position it is in. Further, the two equilibrium positions have substantially the same shape or appearance.

The nature of the present invention can be readily seen by examining the samples of the device that were previously submitted.

Claims 1-17 are rejected under 35 U.S.C. §112, second paragraph. It is alleged that the "[i]t is not clear from the recitation whether applicant intends to claim the first equilibrium position, or the second equilibrium position." Applicant believes that it is clear that he is claiming a device capable of two stable equilibrium conditions wherein the second equilibrium position provides a shape that is substantially the same as the shape of the device in the first equilibrium position and the device will hold the second equilibrium position until manual manipulation returns the device to the first equilibrium position. The nature of the two equilibrium positions defines the structure of the device.

Claim 1 is rejected under 35 U.S.C. §102(b) and claims 2-17 are rejected under 35 U.S.C. §103(a) over newly cited Schuster (US 3,672,380). Schuster discloses a cleaning device having a rubber cap that is used to confine the liquid jet and assist in cleaning. The examiner asserts that the device has two stable equilibrium positions (referring to col. 2, lines 73-75). However, col. 2, lines 73-75 state:

By properly pressing downward or upward against the cup alternately, additional pressure or suction may be formed on the area being cleaned for additional actions.

Lyman  
Scr. No. 09/417,428  
Page 5 of 9

It is not seen how this language describes or suggests that the device has two stable equilibrium conditions. Indeed, by looking at the drawings, one of ordinary skill in the art would readily conclude that such action of pressing downward or upward against the cup would not result in any stable equilibrium position, but that the cup would return to its original shape as soon as the pressure is relaxed.

Further, there is no teaching or suggestion in Schuster that external force should be applied to the rubber cup to invert it into a second stable position. It is not seen how one of ordinary skill in the art would find it obvious to invert the rubber cup of Schuster. Indeed, such an inversion would make the rubber cup totally ineffective for its intended purpose.

Still further, there is no teaching or suggestion in Schuster for a device capable of two stable equilibrium conditions wherein the second equilibrium position provides a shape that is **substantially the same** as the shape of the device in the first equilibrium position. Even if one were manually to invert the rubber cup of Schuster, the inverted shape would be substantially **dissimilar** to the original shape.

On the contrary, in the device of the present invention, the first equilibrium position has substantially the same shape as the second equilibrium position, as illustrated in FIG. 2 by the dashed line. To reestablish the original equilibrium position requires pressing inwardly on the second surface to reinvert the device from the second equilibrium position to its original equilibrium position. Because both

Lyman  
Ser. No. 09/417,428  
Page 6 of 9

positions are stable, it makes no difference in which position the device is - the device looks substantially the same.

Samples of the device of the present invention were submitted previously to aid the examiner. As can be seen, there is no difference between the sample device in the first or the second equilibrium position. That is not true for the device of Schuster (see sketch of Schuster cleaning device in inverted position, attached hereto).

Claims 2-17 are patentable over Schuster for at least the reasons discussed above with respect to claim 1.

With respect the particular dimensions set forth in claims 2-8, the polymeric material as set forth in claims 9 and 16, the surfaces having a texture as set forth in claims 10-13, and the scent being added as set forth in claim 14, the examiner concludes that such would have been obvious in view of Schuster "for the purpose of making the device more amusing and interesting."

It is not seen where there is any suggestion that one of ordinary skill in the art would desire to make the rubber cup of the Schuster cleaning device *more amusing and interesting*. Indeed, the specific dimensions set forth in claims 2-8 and the polymeric material set forth in claims 9 and 16 are preferred dimensions and materials for making the claimed stress relief disc function to provide two stable positions when manipulated manually and provide the tactile feedback. No suggestion

Lyman  
Ser. No. 09/417,428  
Page 7 of 9

is made in Schuster for a device having the claimed dimensions. Nor is there any suggestion that the Schuster device provide two stable positions when manipulated manually and provide the tactile feedback. Indeed, the function of Schuster's rubber cup would suggest a rubber material having dimensions such that the cup would return to its original shape when applied pressure is relaxed. Because the structure and function of the Schuster device is so different, it is not seen how it would have been obvious to one of ordinary skill in the art to use the claimed dimensions and materials for Applicant's stress relief disc, which has a totally different structure and function.

For example, in the embodiment set forth in claim 8, the device has a domed peak formed in the center portion, the peak having a height  $h_p$  relative to a plane containing the peripheral portion, and the ratio of  $h_p$  to  $d$  is **not greater than** about  $1/3$ . It is not seen how this claimed device would have been obvious from Schuster.

Regarding the textured surface as set forth in claims 10-13 or the scent added to the material as set forth in claim 14, there is suggestion in Schuster for any reason to use a textured surface or a scent for the rubber cup. Again, it is not seen how it would have been obvious to one of ordinary skill in the art to use a textured surface on or apply a scent to the rubber cup of Schuster. There is no suggestion whatsoever that the Schuster device should be *more amusing and interesting*. That suggestion appears to be total conjecture by the examiner and unsupported by anything of record or any scientific logic.

Lyman  
Scr. No. 09/417,428  
Page 8 of 9

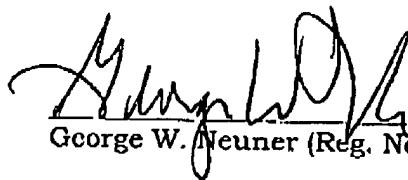
Thus, it is not seen how the present invention would have been obvious to one of ordinary skill in the art in view of Schuster or any other prior art of record, whether each taken alone or in any combination.

In view of the amendment, the interview and the discussion above, it is respectfully submitted that the present application is in condition for allowance. An early reconsideration and notice of allowance are earnestly solicited.

Respectfully submitted,

Date:

5 Feb '02

  
George W. Neuner (Reg. No. 26,964)

Dike, Bronstein, Roberts & Cushman  
Intellectual Property Practice Group  
EDWARDS & ANGELL, LLP  
P.O. Box 9169  
Boston, MA 02209  
(617) 439-4444

11082\_178152.1

Lyman  
Ser. No. 09/417,428  
Page 9 of 9

**Appendix showing details of amendment**

1. An amusement and stress relief device formed of a flexible, resilient polymeric material consisting essentially of:

a center portion with a substantially planar peripheral portion surrounding the center portion;

the center portion having a concave first lower surface and a convex first upper surface,

the device having two stable equilibrium positions whereby manual manipulation of the device inverts the surfaces between the two stable equilibrium positions,

wherein a first stable equilibrium position comprises the first lower surface having a concave shape and the first upper surface having a convex shape and, after inversion, a second stable equilibrium position comprises the first upper surface now having a concave shape and the first lower surface now having a convex shape,

[whereby manual manipulation of the device inverts the surfaces between the two stable equilibrium positions,]

wherein the second equilibrium position provides a shape that is substantially the same as the shape of the device in the first equilibrium position and the device will hold the second equilibrium position until [an external force causes it to] manual manipulation returns the device to the first equilibrium position.